

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed**1.1. Name of the Data, data collection Project, or data-producing Program:**

RoxAnn Acoustic Sensor Data Points - Rehoboth Bay, Delaware Algae Mapping with Single Beam Acoustics: June 12 - 16, 2000

1.2. Summary description of the data:

During the spring of 1999, the Delaware Coastal Programs(DCP) identified the spatial extent of macroalgae in the shallow portions of Rehoboth Bay utilizing traditional photogrammetric methods. The DCP used true color aerial photographs, image processing software, a geographical information system (GIS), and a limited field survey to identify 1.88 square kilometers of macroalgae in all but the deepest parts of the bay. Turbid conditions prevented identification of the full extent of the vegetation. Although the 1999 effort was highly successful, it was clear that aerial photography could not penetrate to the deeper parts of the bay or where conditions were turbid. For the 2000 effort, the DCP partnered with the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management Coastal Remote Sensing Program. The Benthic Habitat Mapping project, a part of the Center's Coastal Remote Sensing program, utilized a RoxAnn acoustic sensor to identify benthic cover in turbid areas of the bay June 12- 16, 2000. The instrument was used to identify bottom type by extracting data on bottom roughness and bottom hardness from the primary and secondary sounder echoes. The data is classified on-the-fly, using a towed video camera for field validation, and subject to a post-processing classification. The unit collected data throughout the bay in areas greater than 1.4 meters in depth and serves as a powerful complement to the aerial photography. The RoxAnn data points were exported into a geographic information system (GIS) and post-processed to remove unreliable data points and re-classified. This data set is comprised of the cleaned, attributed point data. The attributes include location, date, time, depth, field derived classification, and the classification derived from post-processing the data. This system is fully described in "Development of a System for Classification of Habitats in Estuarine and Marine Environments (SCHEME) for Florida, Report to U.S. EPA - Gulf of Mexico Program, Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute. Review Draft 12/04/02."

Original contact information:

Contact Org: NOAA Office for Coastal Management

Phone: 843-740-1202

Email: coastal.info@noaa.gov

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2000-06-12 to 2000-06-16

1.5. Actual or planned geographic coverage of the data:

W: -75.137, E: -75.0756, N: 38.6938, S: 38.6332

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

Map (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:

coastal.info@noaa.gov

2.5. Phone number:

(843) 740-1202

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:**3.2. Title:**

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):****5. Data Lineage and Quality**

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- 2000-06-19 00:00:00 - In June of 2000, the RoxAnn acoustic sensor was run in North-South and East-West transects across Rehoboth bay, recording geographically referenced point measurements of the acoustic data. The RoxAnn system analyzes two acoustic signals, bottom roughness (E1) and bottom hardness (E2). The ratios of these two measurements were calibrated in the field to known bottom types. Ground-truthing the measurements in the field was accomplished by under water video, grab samples and visual verification. The field database collected from June 12 - 16, 2000 was exported from the RoxMap software as a text file. Unreliable data points indicated by impossible bathymetry data were removed (i.e. depths in excess of 3 meters). In addition, series of identical points were reduced to the initial value and the remaining points from the data set. The fifteen original field derived classes developed in the field varied in level of descriptiveness: ulva; mud and algae; sand and algae; algae; gracilaria; gracilaria on mud; sand; bioturbated mud; shell/mud/algae; sandy mud; hard sand; mud with 15% algae; soft mud; mud and unknown. These overlapping and varying classifications were grouped to four general classes which comprised the bottom types observed equally general: algae (greater than 15%), mud (15% algae cover or less on soft mud), sand (15% algae or less on harder mud/sand) and unknown. The benthic data was then classified according to the System for Classification of Habitats in Estuarine and Marine Environments (SCHEME). This system is fully described in "Development of a System for Classification of Habitats in Estuarine and Marine Environments (SCHEME) for

Florida, Report to U.S. EPA -Gulf of Mexico Program, Florida Fish and Wildlife Conservation Commission, Florida Marine Research Institute. Review Draft 12/04/02.
" These classes were then aggregated to either algae or no algae classes.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

<https://www.fisheries.noaa.gov/inport/item/47871>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

ftp://ftp.coast.noaa.gov/pub/benthic/Single_Beam_Acoustic_Data/DE_RehobethBay_rox.zip

7.3. Data access methods or services offered:**7.4. Approximate delay between data collection and dissemination:**

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.